

What is Claimed is:

1. A method for processing toxic gasses in a vortex reacting chamber, comprising the steps of:
 - (a) subjecting exhaust to instantaneous pyrolysis for producing exhaust products by passing exhaust through a fire torch prior to entering a reacting chamber, the exhaust products consisting of gaseous molecules and fine solid molecules;
 - (b) introducing gases into the reacting chamber by means of a reacting chamber gas inlet, for forming a velocity field that generates forces to clean the fine solid molecules attached to the reactor inner wall;
 - (c) dissolving HF in gaseous modules in a water tank set and carrying away the fine solid molecules suspended above a normal water level within the water tank set; and
 - (d) processing the remaining gaseous modules and fine solid molecules by a wet washing tower.
2. The method for processing toxic gasses in a vortex reacting chamber of Claim 1, wherein the reacting chamber includes an exhaust inlet, a fire torch, a reacting chamber and a reacting chamber gas inlet.
3. The method for processing toxic gasses in a vortex reacting chamber of Claim 1, wherein the fire torch is produced by any of plasma, electro-heating and fuel gas.
4. The method for processing toxic gasses in a vortex reacting chamber of Claim 1, wherein reacting chamber includes plural reacting chamber gas inlets.
5. The method for processing toxic gasses in a vortex reacting chamber of Claim 1, wherein the reacting chamber are situated normally to the reacting chamber gas inlet such that the gases enter the reacting chamber along a tangential direction of the reaction chamber.
6. The method for processing toxic gasses in a vortex reacting chamber of Claim 1, wherein the gases mainly consist of inactive gases, such as N₂.

7. The method for processing toxic gasses in a vortex reacting chamber of Claim 1, wherein the water tank set includes a water tank connecting to the reacting chamber.
8. The method for processing toxic gasses in a vortex reacting chamber of Claim 1, wherein the water tank set includes a first water tank and a second water tank, the first water tank, reacting chamber and second water tank being sequentially arranged from top down, wherein the first water tank and the second water tank are connected by a connector.
9. The method for processing toxic gasses in a vortex reacting chamber of Claim 8, wherein the connector includes a top opening projecting towards the water level from a bottom of the first water tank to a level close to but beneath the normal water level, and a bottom opening connecting inside of the second water tank, for carrying away the fine molecules suspended above the water level in step (c).
10. A method for processing toxic gasses in a vortex reacting chamber, comprising the steps of:
 - (a) introducing exhaust into a reacting chamber by means of an exhaust inlet and subjecting the exhaust to pyrolysis by supplying heat through a fire torch to produce exhaust products consisting of gaseous molecules and fine solid molecules, the exhaust inlet being situated normally to the reacting chamber;
 - (b) dissolving HF in gaseous modules in a water tank set and carrying away the fine solid molecules suspended above a water level within the water tank set; and
 - (d) processing the remaining exhaust products by a wet washing tower.
11. The method for processing toxic gasses in a vortex reacting chamber of Claim 10, wherein the reacting chamber includes an exhaust inlet, a fire torch and a reacting chamber.
12. The method for processing toxic gasses in a vortex reacting chamber of Claim 10, wherein the fire torch is produced by any of plasma, electro-heating and fuel gas.

13. The method for processing toxic gasses in a vortex reacting chamber of Claim 10, wherein reacting chamber includes plural exhaust inlets.
14. The method for processing toxic gasses in a vortex reacting chamber of Claim 1, wherein the exhaust forms a velocity field that generates forces to clean the fine solid molecules attached to the reactor inner wall because the reacting chamber are situated normally to exhaust inlet.
15. The method for processing toxic gasses in a vortex reacting chamber of Claim 10, wherein the water tank set includes a water tank connecting to the reacting chamber.
16. The method for processing toxic gasses in a vortex reacting chamber of Claim 10, wherein the water tank set includes a first water tank and a second water tank, the first water tank, reacting chamber and second water tank being sequentially arranged from top down, wherein the first water tank and the second water tank are connected by a connector.
17. The method for processing toxic gasses in a vortex reacting chamber of Claim 16, wherein the connector includes a top opening projecting towards the water level from a bottom of the first water tank to a level close to but beneath the normal water level, and a bottom opening connecting inside of the second water tank, for carrying away the fine molecules suspended above the water level in step (b).
18. A device for processing toxic gasses in a vortex reacting chamber, comprising:
 - a reacting chamber;
 - a reacting chamber gas inlet provided to the reacting chamber and situated normally to the reacting chamber such that gases are introduced into the reacting chamber along a tangential direction;
 - a water tank set, connecting to the reacting chamber; and
 - a wet washing tower, connecting to the water tank set;wherein the exhaust is joined to a fire torch prior to entering the reacting chamber for reaction, and external gases not participated in the reaction

are introduced into through the reacting chamber gas inlet to carry away fine solid molecules attached to a reacting chamber inner wall after the reaction; products produced during the reaction and precipitated in the water tank set are discharged after being subjected to filtering and settling processes and the remaining products are discharged after being introduced into the wet washing tower for processing.

19. The device for processing toxic gasses in a vortex reacting chamber of Claim 18, wherein the reacting chamber includes at least one exhaust inlet and a fire torch.
20. The device for processing toxic gasses in a vortex reacting chamber of Claim 18, wherein the reacting chamber includes plural reacting chamber gas inlets.
21. The device for processing toxic gasses in a vortex reacting chamber of Claim 18, wherein the fire torch is produced by any of plasma, electro-heating and fuel gas.
22. The device for processing toxic gasses in a vortex reacting chamber of Claim 18, wherein the external gases form a velocity field that generates forces to clean the reactor inner wall because the reacting chamber are normal to external gases.
23. The device for processing toxic gasses in a vortex reacting chamber of Claim 18, wherein the gases mainly consist of inactive gases, such as N₂.
24. The device for processing toxic gasses in a vortex reacting chamber of Claim 18, wherein the water tank set includes a first water tank and a second water tank, the first water tank, reacting chamber and second water tank being sequentially arranged from top down, wherein the first water tank and the second water tank are connected by a connector.
25. A device for processing toxic gasses in a vortex reacting chamber, comprising:
a reacting chamber, having an exhaust inlet provided to the reacting chamber and situated normally to the reacting chamber such that exhaust is introduced into the reacting chamber along a tangential direction;

a water tank set, connecting to the reacting chamber; and

a wet washing tower, connecting to the water tank set;

wherein the exhaust is joined to a fire torch prior to entering the reacting chamber for reaction, and carries away fine solid molecules attached to a reacting chamber inner wall after the reaction; products produced during the reaction and precipitated in the water tank set are discharged after being subjected to filtering and settling processes and the remaining products are discharged after being introduced into and processed in the wet washing tower.

26. The device for processing toxic gasses in a vortex reacting chamber of Claim 25, wherein the reacting chamber includes at least one exhaust inlet and a fire torch.
27. The device for processing toxic gasses in a vortex reacting chamber of Claim 25, wherein the reacting chamber includes plural exhaust inlets.
28. The device for processing toxic gasses in a vortex reacting chamber of Claim 27, wherein the fire torch is produced by any of plasma, electro-heating and fuel gas.
29. The device for processing toxic gasses in a vortex reacting chamber of Claim 25, wherein the water tank set includes a water tank connecting to the reacting chamber.
30. The device for processing toxic gasses in a vortex reacting chamber of Claim 25, wherein the water tank set includes a first water tank and a second water tank, the first water tank, reacting chamber and second water tank being sequentially arranged from top down, wherein the first water tank and the second water tank are connected by a connector.